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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,098	05/03/2001	Hugo L. Schippmann	1556	5081

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EXAMINER	
GONZALEZ, JULIO C	
ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/806,098	SCHIPPMANN, HUGO L.	
	Examiner	Art Unit	
	Julio C. Gonzalez	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8-12,14 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6,8-12,14 and 16* is/are rejected.

7)☒ Claim(s) *3 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

Claim 4, line 5, "said facility management" lacks antecedent basis.

Claims 9-12, 14 and 16 are objected to because of the following informalities: such claims are directed to a method and are dependent on apparatus claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 6, 8, 9, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al in view of Kikuchi and the IEE Proceedings-C "Role and Objectives of Control for Wind Turbines".

Lyons discloses a wind energy system having a wind rotor 120, rotor blades 122, and a generator 126 connected to the rotor (see figure 1). Also, part of the system may be shut off depending on the need (column 2, lines 61-67 - column 3, line 1).

However, Lyons does not disclose adjusting the angle of the blades.

On the other hand, Kikuchi discloses for the purpose of preventing the blades of a wind generator to break, a wind rotor (see figure 3), a generator 5 and blades that varied the angle depending on the wind velocity (see abstract).

Moreover, the IEE Proceedings-C "Role and Objectives of Control for Wind Turbines" teaches for the purpose of reducing fatigue damage to the blades and other components of wind generators that it is well known in the art to operate a wind turbines within 5m/s to 25 m/s (page 136, under Review of pitch regulation, paragraph 2). Also, the proceedings teaches that improvement may be achieved by constant monitoring of the wind turbine (page 136, paragraph 6) and that the "power is maintained at its rated value until a maximum windspeed is reached when the turbine is shutdown (cut-out windspeed)" and by varying the pitch of the blades, "the power derived from the wind is reduced by either partially feathering the blades" (page 136, paragraph 4; see figure 3 in page 136). Also, changing the pitch angle, "influences all the wind induces forces and torques which drive the wind turbine dynamics (page 139, paragraph 2; see also page 140, paragraph 2; page 141, paragraph 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a wind energy system as disclosed by Lyons et al and to modify the invention by varying the angle of the blades for the purpose of preventing the blades of a wind generator to break as disclosed by Kikuchi and to clearly teach that changing the blade angle may decrease the rpm of the rotor for the purpose of reducing fatigue damage to the blades and other components of wind generators as taught in the IEE Proceedings-C "Role and Objectives of Control for Wind Turbines".

3. Claims 2 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyons et al, Kikuchi and the IEE Proceedings-C "Role and Objectives of Control for Wind Turbines" as applied to claims 1 and 9 above, and further in view of DiValentin et al.

The combined wind generator discloses all of the elements above. However the combined wind generator does not disclose implicitly regulating the power above and below a limit of wind speed.

On the other hand, DiValentin et al discloses for the purpose of increasing the efficiency of wind generators, a system in which the wind rotor is controlled above and below a wind speed limit (see claim 3 & abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined wind energy system as disclosed above and to modify the invention by controlling the wind rotor above/below wind speed limits for the purpose of increasing the efficiency of wind generators as disclosed by DiValentin et al.

Response to Arguments

4. Applicant's arguments filed 12/09/03 have been fully considered but they are not persuasive.

The cited documents in the office action disclose a wind energy system that includes a control system that regulates down to the rotor speed (see Lyons et al, column 1, lines 15-18 & column 2, lines 50-52, 55, 56, 63-65 & column 3, lines 12-14 and 20). Lyons et al disclose that it is known to shut down turbines of wind generators using a control system depending on wind speed (see abstract of Lyons et al). Moreover, Kikuchi teaches that the blades may be controlled depending on the wind speed (see abstract of Kikuchi). Moreover, Di Valentin et al show that a wind generator may be controlled by decreasingly down the power as the velocity is increased (see graph, figure 2 of DiValentin et al).

Also, the shutoff speed was not clearly defined in the claims or its parameters so as to differentiate from the present invention to the prior art.

Moreover, the claims only mention of a "limit speed" and the "shutoff speed". Respectfully, the claims do not define what is the limit speed (e.g. wind speed lying under the shutoff speed at which the power output of the wind energy system is deliberately/arbitrarily reduced, as pointed out in the remarks) and the shutoff speed (wind speed at which a wind energy system that has no pitch control or the like so that the rotor blades can be ordered to be shut off or the maximum wind-speed up to which the wind energy system is designed to be operational, as pointed out in the remarks).

Claim 1 more specifically discloses that the wind energy system functions in a range between a limit speed and such limit speed is "substantially 16 meters per second". The article "Role and objectives of control wind turbines" discloses in page 136, under the sub-heading "Review of pitch regulation", lines 6-9 that wind energy system are normally operated between 5 meter per second and 25 meter per second. Such range covers the 16 meter per second range disclose in claim 1.

5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., shutoff speed being defined as the maximum wind speed up to which the wind energy system is designed to be operational; and the limit speed being defined as the wind speed lying under the shutoff speed at which the power output of the wind energy system is deliberately/arbitrarily reduced) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the article "Role and objectives of control for wind turbines" and DiValentin et al shows ways of increasing the efficiency of wind generators. Such prior art is well cover in the same field of expertise.

Allowable Subject Matter

8. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 3, the prior art fails to disclose, in combination with all of the base claim limitations that the system regulates the power output beginning at the rated power, constantly and decreasingly down to the shutoff speed when the wind speed increases above the predetermined limit speed.

Claim 4 is dependant on claim 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563, which will be in effect until 02/02/04. The new phone number that will be in effect AFTER 02/02/04 will be (571) 272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

BURTON S. MULLINS
PRIMARY EXAMINER

January 15, 2004